

APPENDIX A—WAP UNDERTAKINGS EXEMPT FROM SECTION 106 REVIEW

All undertakings will be done in accordance with applicable local building codes or the International Building Code, where applicable. In accordance with 36 CFR 800.3(a)(1), the following undertakings have been determined to have no potential to cause effects on historic properties:

A. Exterior Work

- 1) Air sealing of the building shell, including caulking, weather-stripping, and other air infiltration control measures on windows and doors, and installing thresholds in a manner that does not harm or obscure historic windows or trim
- 2) Thermal insulation, such as non-toxic fiberglass and foil wrapped, in walls, floors, ceilings, attics, and foundations in a manner that does not harm or damage historic fabric
- 3) Blown in wall insulation where no holes are drilled through exterior siding, or where holes have no permanent visible alteration to the structure
- 4) Removable film on windows (if the film is transparent), solar screens, or window louvers, in a manner that does not harm or obscure historic windows or trim
- 5) Reflective roof coating in a manner that closely resembles the historic materials and form, or with materials that restore the original feature based on historic evidence, and in a manner that does not alter the roofline, or where not on a primary roof elevation or visible from the public right-of-way
- 6) Storm windows or doors, and wood screen doors in a manner that does not harm or obscure historic windows or trim
- 7) In-kind replacement or repair of primary windows, doors and door frames that closely resemble existing substrate and framing
- 8) Repair of minor roof and wall leaks prior to insulating attics or walls, provided repairs closely resemble existing surface composite

B. Interior Work

Special Note: Undertakings to interior spaces where the work will not be visible from the public right of way; no structural alterations are made; no demolition of walls, ceilings or floors occurs; no drop ceilings are added; or no walls are leveled with furring or moved, should be automatically excluded from **SHPO** review. This work includes:

1. Energy efficiency work within the building shell:

- a. Thermal insulation in walls, floors, ceilings, attics, crawl spaces, ducts and foundations
- b. Blown in wall insulation where no decorative plaster is damaged
- c. Plumbing work, including installation of water heaters
- d. Electrical work, including improving lamp efficiency

- e. Sealing air leaks using weather stripping, door sweeps, and caulk and sealing major air leaks associated with bypasses, ducts, air conditioning units, etc.
- f. Repair or replace water heaters
- g. Adding adjustable speed drives such as fans on air handling units, cooling tower fans, and pumps
- h. Install insulation on water heater tanks and water heating pipes
- i. Install solar water heating systems, provided the structure is not visible from the public right of way
- j. Install waste heat recovery devices, including desuperheater water heaters, condensing heat exchangers, heat pump and water heating heat recovery systems, and other energy recovery equipment
- k. Repair or replace electric motors and motor controls like variable speed drives
- l. Incorporate other lighting technologies such as dimmable ballasts, day lighting controls, and occupant controlled dimming

2. Work on heating and cooling systems:

- a. Clean, tune, repair or replace heating systems, including furnaces, oilers, heat pumps, vented space heaters, and wood stoves
- b. Clean, tune repair or replace cooling systems, including central air conditioners, window air conditioners, heat pumps, and evaporative coolers
- c. Install insulation on ducts and heating pipes
- d. Conduct other efficiency improvements on heating and cooling systems, including replacing standing pilot lights with electronic ignition devices and installing vent dampers
- e. Modify duct and pipe systems so heating and cooling systems operate efficiently and effectively, including adding return ducts, replace diffusers and registers, replace air filters, install thermostatic radiator controls on steam and hot water heating systems
- f. Install programmable thermostats, outdoor reset controls, UL listed energy management systems or building automation systems and other HV AC control systems

3. Energy efficiency work affecting the electric base load of the property:

- a. Convert incandescent lighting to fluorescent
- b. Add reflectors, LED exist signs, efficient HID fixtures, and occupancy (motion) sensors
- c. Replace refrigerators and other appliances

4. Health and safety measures:

- a. Installing fire, smoke or carbon dioxide detectors / alarms
- b. Repair or replace vent systems on fossil-fuel-fired heating systems and water heaters to ensure that combustion gasses draft safely to outside

- c. Install mechanical ventilation, in a manner not visible from the public right of way, to ensure adequate indoor air quality if house is air-sealed to building tightness limit

APPENDIX B - SEP AND EECBG UNDERTAKINGS EXEMPT FROM SECTION 106 REVIEW

A. Category 1 – No Consultation Required

In addition to the undertakings provided in *Exhibit A (WAP Undertakings exempt from Section 106 Review)*, DOE and the SHPO have concluded that the following undertakings do not have the potential to cause effects on historic properties per 36 CFR § 800.3(a)(1):

1. *General efficiency measures not affecting the exterior of the building:*

- a. Energy audits and feasibility studies
- b. Weatherization of mobile homes and trailers
- c. Caulking and weather-stripping around doors and windows in a manner that does not harm or obscure historic windows or trim.
- d. Water conservation measures -like low flow faucets, toilets, showerheads, urinals - and distribution device controls
- e. Repairing or replacing in kind existing driveways, parking areas, and walkways with materials of similar appearance
- f. Excavating to gain access to existing underground utilities to repair or replace them, provided that the work is performed consistent with previous conditions
- g. Ventilating crawl spaces
- h. Replacement of existing HV AC equipment including pumps, motors, boilers, chillers, cooling towers, air handling units, package units, condensers, compressors, heat exchangers that do not require a change to existing ducting, plumbing, electrical, controls or a new location, or if ducting, plumbing, electrical and controls are on the rear of the structure or not visible from any public right of way
- i. Adding or replacing existing building controls systems including HV AC control systems and the replacement of building-wide pneumatic controls with digital controls, thermostats, dampers, and other individual sensors like smoke detectors and carbon monoxide detectors (wired or non-wired)
- j. New installation of non-hard wired devices including photo-controls, occupancy sensors, carbon dioxide, thermostats, humidity, light meters and other building control sensors, provided the work conforms with applicable state and local permitting requirements
- k. Adding variable speed drive motors
- l. Insulation of water heater tanks and pipes
- m. Furnace or hot water tank replacement that does not require a visible new supply or venting

2. Insulation measures not affecting the exterior of the building:

- a. Thermal insulation installation in walls, floors and ceilings (excluding spray foam insulation)
- b. Duct sealing, insulation, repair or replacement in unoccupied areas
- c. Attic insulation with proper ventilation; if under an effective R8 - add additional R-19 up to R-38 (fiberglass bat only)
- d. Band joist insulation - R-II to R19 as applicable
- e. Water heater tank and pipe insulation

3. Electric base load measures not affecting the exterior of the building:

- a. Appliance replacement (upgrade to Energy Star appliances)
- b. Compact fluorescent light bulbs
- c. Energy efficient light fixtures, including ballasts (Replacement)
- d. LED light fixtures and exit signs (Replacement)
- e. Upgrade exterior lighting (replacement with metal halide bulbs, LEDs, or others) along with ballasts, sensors and energy storage devices not visible from any public right of way

B. Category 2 - No Consultation Required if SOI Standards are Adhered to and Verified by Qualified Staff, if Applicable

1. Efficiency and repair measures:

- a. Painting over previously painted exterior surfaces, provided destructive surface preparation treatments are not used (such as water-blasting, sandblasting and chemical removal)
- b. Installation or replacement of downspout extensions, provided that the color of the extensions is historically appropriate for the period and style of the property
- c. Repairing or upgrading electrical or plumbing systems and installing mechanical equipment, in a manner that does not permanently change the appearance of the interior or exterior of the building
- d. Installation of new HV AC equipment (such as pumps, motors, boilers, chillers, cooling towers, air handling units, package units, condensers, compressors, or heat exchangers) in a manner that does not permanently change the appearance of the building
- e. Integrated shingle-style or thin film solar systems on the rear roof of the structure, behind the parapet or not visible from the public right of way.
- f. Solar systems (including photovoltaic and solar thermal) not visible from the public right of way and if ground-mounted can be installed without ground disturbance and if roof-mounted will not require new building reinforcement
- g. Wind system additions to existing wind power facilities that will not require ground disturbance and if building mounted will not require building reinforcement
- h. Lead-based paint abatement in accordance with the Standards and Preservation Brief #37

- i. Building cleaning in accordance with the Standards and Preservation Briefs #1, #6 and #10
- j. Repairing masonry, including re-pointing and rebuilding chimneys in accordance with the Standards and Preservation Brief # 2
- k. New lighting controls including photo-sensors and shading elements if not visible from the public right of way
- l. New metering devices in a manner that does not permanently change the appearance of the interior or exterior of the building, or if the addition is on the exterior of the structure and is not visible from the public right of way
- m. New water efficient fixtures and fittings in a manner that does not permanently change the appearance of the interior or exterior of the building

2. *Installation or repair of roofing, siding, and ventilation:*

- a. White Roofs, Cool Roofs, Green Roofs, Sod or Grass Roofs not visible from the public right-of-way
- b. Rainwater catches and/or gray water systems not viewable from the public right of way
- c. Repair or replacement of existing exterior siding provided that new siding closely resembles the existing siding in dimension, profile and texture
- d. Flat or shallow pitch roof replacement (shallow pitch is defined as a pitch with a rise-to-run ratio equal to or less than 3" to 12") with no part of the surface of the roof visible from the ground
- e. Roof repair or replacement with materials that closely resemble the historic materials and form, or with replacement materials that are close to the original in color, texture, composition and form to restore the original feature based on historic evidence, and in a manner that does not alter the roofline
- f. Installing vents (such as continuous ridge vents covered with ridge shingles or boards, roof vents, bath and kitchen vents, soffit and frieze board vents or combustion appliance flues) if not located on a primary roof elevation or not visible from the public right-of-way
- g. Installing foundation vents, if painted or finished to match the existing foundation material.

3. *Windows and doors:*

- a. Installing storm windows, storm doors or wood screen doors in a manner that does not harm or obscure historic windows, doors or trim
- b. Installing insulated exterior replacement doors where the door openings are not altered and are not visible from the public right-of-way
- c. Window or glazing treatments that do not change the appearance of the interior or exterior of the building, or if the addition is on the exterior of the structure